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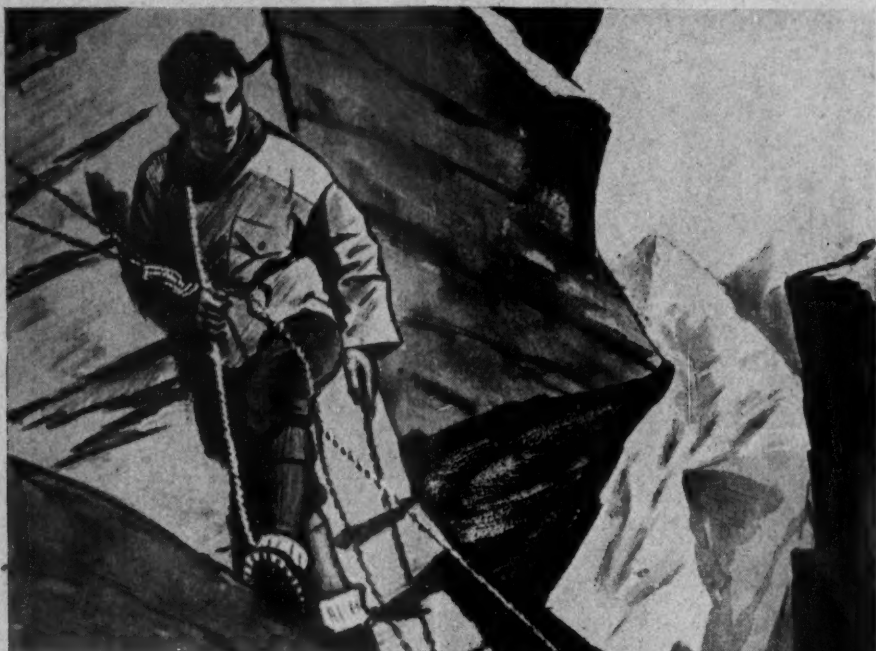
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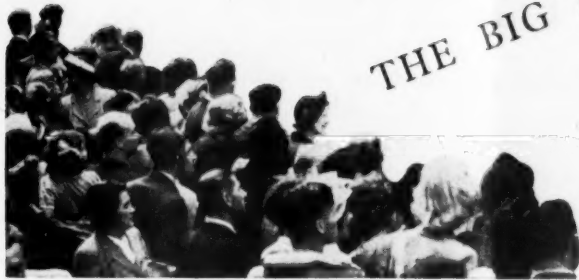


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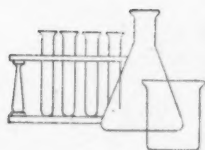
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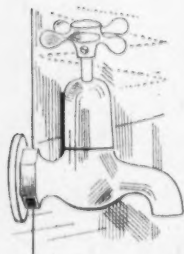
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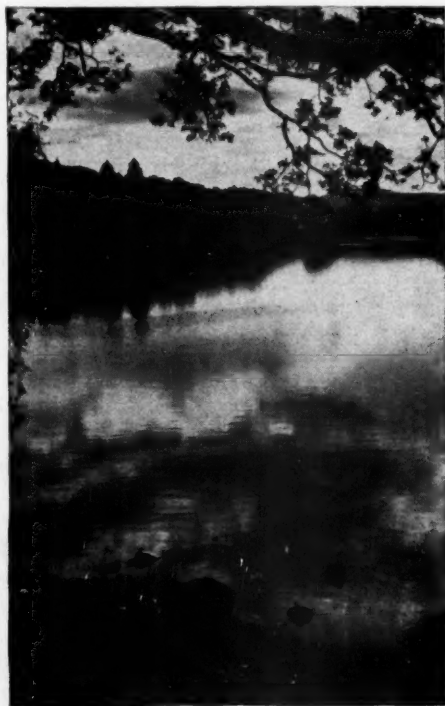
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EDITORIAL

The American School Health Service Looks Ahead

Three years ago Professor Alan Moncrieff, in the Dawson Williams Lecture, advised us to go to America to find out how a school health service should be run.¹ During the last few weeks many may have wondered whether it should be allowed to run at all. Just after Christmas we read that it was a "bastard service,"² and shortly after the New Year that it was "an extravagant redundancy."³ But still it could hardly be wound-up at a moment's notice and will have to go on for a while. It would be interesting, therefore, to follow Prof. Moncrieff's advice and to see how they are getting on in the States. Sir Allen Daley, after visiting there, said in November, 1947,⁴ that their school health service was not as advanced as ours, but a "Proposed Report on Educational Qualifications of School Physicians," published in the January, 1953, number of *The American Journal of Public Health*, suggests that they mean to remedy this.

In an early paragraph of this report we read, "With increased attention being given to the continued improvement of child health, public health and education authorities face greater demands for further development of school health programmes." The aims of the school health service of America seem to correspond very closely to those in this country as set out in the memorandum which the Society presented⁵ to the Central Advisory Council for Education (England) and in various other memoranda. "The school health programme is a co-operative enterprise both inside and outside the school. It needs to be an integral part of the total school programme and also an integral part of the total community programme." "The teachers are expected to play a big part in the 'health appraisal' of the children. The periodic medical examination, to which the greatest importance is attached, may be carried out by the child's own physician or by the school physician, and 'should be sufficiently painstaking and comprehensive to command medical respect, sufficiently informative to guide school personnel in the proper counselling of the student, and sufficiently personalised to form a desirable educational experience.' But we are surprised to find that the report does not lay much stress on the

needs of handicapped pupils which are met by "special educational programmes such as lip-reading, speech correction, sight conservation, visiting teacher service, modified physical education, a shortened day and rest period."

There are 8,000 physicians giving part-time or whole-time service in the American schools. A large proportion of these are general practitioners; only 4.0% are paediatricians. About 20% are health officers. "During the last 25 years the number of full-time physicians in schools has increased considerably." (In 1950 the number of children on school rolls was 25,111,427. Thus there was one doctor to every 3,140 children. In England and Wales in the same year there was one doctor to every 6,230 children.) The doctors may be employed by the department of health or by the board of education or jointly. "The condition of paramount importance to the school physician is not the particular board that employs him, but the presence of wholesale constructive relationship between the two boards."

There are two categories of school physicians, the Directors of School Health Services and the School Medical Advisers. The former, who are whole-time administrative officers, should have had at least two years as school medical advisers. The latter should be physicians with special training and experience in the fields of paediatrics, of internal medicine, or of child psychiatry and, if possible, in public health. "Above all, he must have an interest in children, a desire to help them, and an understanding of the basic principles of school health as they relate to both education and public health."

This report certainly leaves the impression that the American Public Health Association means that the school health service of America shall continue to develop. We shall watch with interest to see how soon it attains to the high standards of the school health service of this country. When it has got there, will it be abandoned on account of its bastardy or will it be cut drastically as an extravagant redundancy?

Central Office Staff

As from April 1st, 1953, Mr. G. L. C. Elliston will be giving only about one day's service a week to the Society, the Council having acceded to his request to be enabled to give the main part of his time to his duties as Deputy Editor of *The Medical Officer*. His title will be Secretary instead of Executive Secretary and he will continue as Editor of *PUBLIC HEALTH*. Mr. S. R. Bragg, at present Assistant Secretary, will become the whole-time Administrative Officer of the Society and will deal with all correspondence.

¹ *British Medical Journal*, October 7th, 1950.

² *Ibid.* Supplement, December 27th, 1952.

³ *Ibid.* Editorial, January 10th, 1953.

⁴ *PUBLIC HEALTH* (February, 1948), 61, 77.

⁵ *Ibid.* (April, 1946), 59, 103.

SOME MEDICAL PROBLEMS AT A CAMP FOR DISPLACED PERSONS

By S. CHALMERS PARRY, M.A., M.B.C.S., L.R.C.P., D.P.H.,
Medical Officer of Health, Petersfield Urban and
Rural Districts, and Droxford Rural District

I wonder why we all find foreign persons and foreign lands so fascinating? For some, the attraction may be the foreigners themselves with their peculiar customs and national dress; or their fatherland, with its ancient history and places of interest or the curious language and accents. For others, it may be the beautiful scenery and the sport, or even the food. Whatever the cause of this foreign charm, there is a little *je ne sais quoi* about foreigners in their native land.

But, without their true background, the picture is far less alluring; and it may present a very pathetic tone. The thousands of homeless refugees, that follow the trails of every war, do indeed deserve sympathy. Only the victims really know what they suffer; they may still be afraid to talk of their troubles and of their relatives. On the surface, they may not appear to be embittered by their past experiences and it may possibly be months before they will venture to speak freely like any normal citizen. Yet, when numbers of the same nationality come and live together in a camp, they generally lose all these inhibitions; and the comparison of racial temperaments is an interesting study.

Mainly Historical

All this happened in Germany some seven years ago; and it was during the advance of the British and American Armies that over 5,750,000 displaced persons and prisoners of war were uncovered.

How were they collected in the first place? They were directed to Assembly Centres, set up in sites where the advancing troops found any concentration of D.P.s. In the space of three months, fewer than 1,000,000 of these D.P.s were left; for nearly 5,000,000 had been returned home to their own countries. And, by the end of the same year, 1945, the "hard core" of stateless persons and others, mainly Poles, who did not want to return to their countries of origin, amounted to about 500,000.

But what of the 5,000,000 D.P.s who went home and how were they repatriated? Transport was provided from the camps to the Transit Centres; and, from there, they travelled home by rail—either in a westbound direction to the Dutch, Belgian and French frontiers, or eastbound into the Russian Zone.

After the Military Government authorities left, the D.P. camps were taken over by U.N.R.R.A.

The Displaced Persons

We have all heard strange stories about D.P.s. Who were these Displaced Persons? An exact definition would be very complicated; but, broadly speaking, they were people who left their "homestead" either by physical force on account of political or religious convictions or of their own free will because of economic, political or conscience reasons.

They consisted of men, women and children of all nationalities and conditions of life. Their mental and physical condition varied considerably according to their past treatment which, in the case of the "forced workers," depended to some extent upon their occupation.

The two camps, to which I became attached as medical officer, acted as a clearing ground for eastbound and westbound D.P.s and accommodated a moving population of 30,000. Later on, it concentrated on eastbound D.P.s who declined to return; and the numbers then rose to over 50,000.

Once the transit camp was full to capacity, there were usually about 20 different nationalities; but, at one time, there were no less than 30 nations represented before

arrangements could be made for repatriation of the first batch.

As fresh D.P.s arrived, they were sorted into nationalities and were found vacancies in one or other of the small satellite camps, situated in outlying districts. These outside camps contained a maximum number of 15,000 and were only in operation for a comparatively short period.

Some military barracks, that had been evacuated by the German troops, were prepared for the immediate reception of the D.P.s; and the earliest arrivals were French and Belgian P.O.W.s, who came on the third day.

On the whole, the D.P.s displayed a cheerful and hopeful disposition and, at times, they exhibited very lively spirits. On one occasion, a curfew had to be imposed because of some anti-German looting.

On the day our Military Government Detachment took over these barracks as a transit camp for Displaced Persons, the C.O. and I interviewed the German officer who had been left in charge of the troops stationed there, in order to obtain, for temporary employment, some doctors and nurses as well as medical equipment.

Medical and Nursing Staff

In the early stages, the difficulty of obtaining adequate medical and nursing staff was a very real problem; later on, any doctors and nurses who were D.P.s were only too anxious to work in the camp and, moreover, they did a wonderful job.

Some of the doctors were specialists and must have possessed the highest medical qualifications of their country. For example, the chief Polish doctor was a chest physician—a most able and delightful colleague—upon whom I could rely in time of trouble.

But it must be remembered that there was no means of obtaining testimonials (whatever their value might have been) or even of checking the medical qualifications of the applicants before making their appointments. This precaution may sound rather unnecessary; but, as you know, experience enables you to recognise a mistake when you make it again. In this particular instance, one of the "doctors," who had been practising for several months in the camp, was discovered not only to be unqualified but also to be addicted to drug-taking; in fact, he had evidently offered his "medical" services in order to be readily available to his cherished drugs. Furthermore, morphia was not the only missing link; for, on his hurried departure, he took away with him one of my best Dutch nurses as well as one of the precious cars.

Another curious situation developed when two "doctors" of the same nationality accused each other of being unqualified. In fact, the one actually threatened to prevent the other from returning home to Russia if she continued to work with certain doctors at one of the camp hospitals. Medico-political problems of this gravity were, fortunately, rare; but it was not so uncommon for patients to refuse to be treated by a doctor on account of his nationality or political persuasion.

Indeed, this was one of the principal reasons why the Poles established a hospital of their own in the camp. The existence of this second hospital solved the medical treatment problem for the D.P.s. But, in instances where certain nationalities refused to mix, they were accommodated, as far as possible, in separate blocks or camps according to their numbers.

One of the German medical officers, who was transferred from these barracks, remained with me until I left—some seven months later—and proved to be not only most co-operative but an excellent physician.

From time to time, the need for doctors became very acute and one or two German medical students were employed.

Medical Equipment

In retrospect, the difficulty of acquiring drugs and medical equipment was perhaps even worse than that of finding the staff. It was obtained from very varied sources,

* Presidential Address to the Southern Branch, Society of M.O.H., October, 1952.

besides the Military Government Detachment and the International Red Cross who were very helpful.

The unfortunate person to whom the Military Government applied for anything was the Burgomaster. His was indeed a thankless appointment; for it must be remembered that everything, including the food of the D.P.s, was provided at the expense of the civilian population. So it is hardly surprising that, in these early days, burgomasters came and went in rapid succession; in fact, some only survived a day or two—if they were considered to be too unreasonable in their demands.

But the local burgomaster was unable to help us much in supplying medical equipment, as the Germans themselves were in great need.

Excursions in search of equipment were all in the day's work; and I shall never forget the expressions of gratitude and simple delight from the camp doctors when, on one occasion, the day's bag consisted of some needles, syringes, thermometers and 1-minute pulse-timers.

Drugs for treating scabies were at first in very short supply and difficulties were also encountered in finding straw to fill the palliasses for the scabies blocks.

For many reasons, it would have been impossible to obtain Tetmos soap for use in the prevention and treatment of scabies; it was difficult enough to procure a sufficient supply of ordinary soap. In fact, there was no soap whatsoever until the Red Cross parcels arrived. This lack of soap was a constant headache for the C.O., and it was some time before he was able to obtain it for the personal use of the D.P.s as well as for their laundry.

Scabies and Venereal Diseases

The absence of soap only aggravated the conditions which were ideal for the spread of scabies; and it was soon realised that scabies was rife in the camp. So an inspection of all the D.P.s in the camp was made, block by block, and treatment of all cases was successfully carried out—without much opposition.

While the incidence of scabies was known to be very high, even before any mass inspections were undertaken, that of venereal disease was unknown. For persons suffering from V.D. sought treatment outside the camp hospitals—much in the same way as cases of V.D. occurring in England often prefer to attend the *not* so local clinics. However, history does record one memorable night when the military made a raid in the camp on some "unlicensed" premises with a queue of several hundreds waiting patiently outside.

Sanitation

It was soon apparent that the number of w.c.s would be insufficient to cope with the progressively increasing numbers of D.P.s. Numbers were already far in excess of the maximum for whom the barracks were designed; and some action would soon have to be taken to alleviate the overcrowding. We were informed locally that every winter the ground became water-logged, so earth closets were clearly out of the question; and some sort of extension of the existing water-carriage system of disposal was indicated. How could this be done—for, even if suitable latrines were built, water would have to be laid on from somewhere? A solution was found in the fire hoses. In consultation with the German architect and the German doctor, a plan was drawn up for constructing latrines that could be flushed out into the main drainage system by means of the existing fire hoses.

The next problem was to procure cement; for we were told there was none available. However, as soon as the risk of typhoid was explained to one of the German staff, he said he thought this obstacle could be overcome. And how right he was! For, on the following morning, we were surprised to find sufficient cement for the job duly deposited in the camp. It afterwards transpired that this cement had been laid on one side for building a house; but he now felt that the camp needed it more. So, sure enough, the bags of cement materialised by night.

Prophylaxis

The usual routine measures of prevention, which were carried out by the camp doctors, included the following:

1. On admission to the camp, every D.P. was medically inspected and deloused.
2. The kitchen staff were all given T.A.B. inoculations.
3. Inspections of all D.P.s for the detection and treatment of any cases of scabies found.
4. Arrangements were made with the local Field Hygiene Section—and, later, with the Field Sanitary Section—to carry out a systematic disinfection of the whole camp, and to "dust" the camps at monthly intervals.

These sections performed a very useful and efficient service and were always willing to help.

The Friends Ambulance Unit

The Friends Ambulance Unit (F.A.U.) was a Quaker Organisation, attached to the British Red Cross, which worked during the war not only in France and Holland but also in Germany and other countries.

Early in 1946 the F.A.U. Sections, working in D.P. camps, were withdrawn for German welfare work; some members transferred to the Friends Relief Service, others to U.N.R.R.A. or the British Red Cross.

The team, which was working with our Military Government Detachment, was one of a dozen that were then operating in different parts of Germany. It consisted of 12 members, whose functions were so closely connected with the medical side as to merit special mention.

They provided a 24-hour ambulance service for the conveyance of patients to outside hospitals. For many months all the maternity cases and cases of infectious disease were transferred by F.A.U. ambulances to hospitals in a city about 10 miles from the camp. The difficulty of finding the hospitals in pitch dark amid rubble and non-existent roads and the race to reach the hospital in time with the multi-in-labour must have surely been a nightmare.

They made a census of every nationality and collected those of the same nationality together and evacuated them to other areas.

As a routine practice and according to routine military procedure, they sprayed every new entrant to the camp with D.D.T. from a powder gun.

Before the arrival of U.N.R.R.A., they were entirely responsible for the welfare of the D.P.s and they organised the early arrangements for practically everything in the camp, including the accommodation, feeding centres and registration of all the D.P.s.

They made preparations for the hospitals and medical inspections and were always willing to assist in any task, however difficult or distasteful. Needless to say, they were most efficient in all their work; for some of them had spent over three and a half years' training in the organisation of this emergency welfare work.

One of the jobs that fell to their lot was that of distributing the Red Cross food parcels. One would imagine this was easy and pleasant; but, believe me, it was neither, so perhaps a little explanation is indicated.

The Red Cross Food Parcels

At first, these parcels were received only by ex-P.O.W.s; but, later on, the restrictions were relaxed and permission was obtained for their distribution to all the D.P.s in the camp. This was a wonderful thing for the D.P.s and all would have been well had they been satisfied and kept the contents for themselves. But, alas, it was not so. Their immediate reaction was to take the parcels to the nearest city and "flog" them on the Black Market.

The D.P.s, in justifying their action, said: "The parcels are ours and we can do what we like with them. They are the new currency and with them we can buy clothing, food and milk for us and our children." And so they did.

On the other hand, was it fair for the children to have a ration of cigarettes, for these cigarettes would act as some incentive for the non-workers to get work?

So, with the exception of ex-P.O.W.s, the cigarettes were removed from all the parcels and these were pooled for distribution to the workers.

The parents and non-workers, of course, took a very poor view of this; and differences over the parcels led, on one occasion, to a riot with shooting and threats. In fact, a very unhealthy situation developed and the C.O. met it with courage and determination.

Rations

The D.P.s at this camp seemed to fare better than most; for, though the daily ration at first was only in the region of 2,300 calories, later on it was said to be nearer 3,000 calories per head. No cases of hunger oedema were reported, but difficulties were experienced by the camp doctors in limiting their certificates for "malnutrition"; for instructions were received that the numbers receiving "extra diets" were excessive and had to be cut down.

Priority was first given to children, nursing mothers, pregnant mothers (over six months), ex-prisoners of war and malnutrition cases. The extra diet was allotted according to scale and a doctor's certificate was required in all cases. Malnutrition cases received white bread in addition.

At a later stage, cases—specially recommended by the camp doctors—as well as those in the following categories, were permitted to attend the Diet Kitchen for special diet:

Edentulous, and those over 60 years of age; post-operative cases and those discharged from hospitals requiring supplementary food; exhaustion cases; anaemia; chronic gastritis and gastric cases; special concessions were made in the case of D.P.s who performed very strenuous muscular work, such as tree felling; and they were given larger rations. All the D.P.s who worked at the camp obtained extra rations as well as pay.

Intoxicants

There were many cases of alcohol poisoning in the camp; and a number of illicit stills were found from time to time. Some D.P.s were discovered to be past masters in the art of distilling alcohol and all that from absolutely anything and everything. But those who drank these home-made schnapps soon learnt their lesson from bitter experience; and the less fortunate ones did not survive.

On one occasion, no less than six cases of acute methyl alcohol poisoning were admitted to hospital during the early hours. My notes, which are short but not so sweet, simply record "three very severe and three arrested after treatment." There is little doubt, too, that some of the Ukrainians and Poles actually drank red petrol; in fact, several fatalities were reported.

The Big Inspection

The most important official event that took place during the first three months at the camp was undoubtedly the inspection by a British Field-Marshal, who was then the Chairman of the British Red Cross Society and Order of St. John. Excitement was intense on the day of inspection; and the Germans were just as thrilled as the British when Field-Marshal the Lord Cattermole, heralded by his armoured car, drove into the camp.

Language Difficulties

Whenever several nationalities are gathered together, difficulties in understanding their languages are bound to arise; for, it must be confessed, doctors are just as notoriously bad at linguistics as they are at calligraphy, and a suitable interpreter is not always readily available.

From a clinical point of view, we all know how important it is to obtain a medical history of the patient; for a diagnosis that is made solely on signs is surely unreliable, especially if there are no means at our disposal for confirming our suspected diagnosis.

These conditions may obtain, not only in refugee camps, but also on board ship—cargo ships in particular—and my mind naturally travels back to the days when I was a ship-surgeon some years ago.

It was on board a passenger boat, bound for the Far East, that this illuminating incident occurred:

A Chinese patient was brought to the surgery by another Chinese passenger—because he could speak a little English. After having asked this Chinese interpreter whether he would kindly assist me in obtaining a history of the patient's illness, I began my first routine question. To my amazement, he wrote some Chinese characters on a piece of paper and, without saying a word, handed it to the patient for a written reply in Chinese before answering my question. Upon my enquiring the reason why he did not speak to the patient, the "interpreter" replied that he himself was a Cantonese and that neither he nor the patient could understand each other's dialect.

Here, therefore, was a method of communication between Chinese persons who could not speak the same dialect—in point of fact, a system involving the use of written language as opposed to that of spoken language.

The implication was intriguing; for it naturally followed that, if two lists of routine questions were carefully compiled—one in English and the other in Chinese—the services of the "interpreter" could be dispensed with altogether and the doctor would be enabled to communicate direct with his Chinese patient.

The trick of composing such a questionnaire lay in framing the questions in such a way that the answers could only be "Yes" or "No" or a number. It would then only be necessary for the doctor to *point a finger* at the Chinese translation of the medical term, phrase or question required, and the Chinese patient could indicate an affirmative or negative reply.

The main advantage of this finger-pointing method of interrogation is the fact that there need be no oral conversation throughout the process of history-taking; consequently, in order to extract a medical history, it does not matter in the least whether the doctor speaks the language badly or if he cannot even speak it at all.

The interrogator does not read aloud the translations; he merely points them out for the patient to read.

Furthermore, this finger-process provides a method of communication that can be applied equally well to any pair of language-translations—in other words, wherever the doctor and patient do not speak a common language.

Translations of the medical questionnaire were available in some of the languages, spoken by the D.P.s in the camp, for use of the doctor who could not speak the same tongue as his patient.

The Social and Welfare Services

Certain amenities had to be provided as an antidote against the bug of boredom and discontent in the camp.

For the children, there was of course schooling. For the women, classes were organised in cookery, wool-carding, hat-making, dressmaking, sewing and mending; and, for the men, there were special classes for mechanics and technicians. There were also language classes and facilities for adult education.

For the entertainment and amusement of the D.P.s and, as a relief and relaxation from the sordid side of life, there were cinemas, dance bands, orchestras and radio. The Polish radio station broadcast a 12-hour programme, while the Ukrainian cinema showed continuous performances of films direct from Ufa. Incidentally, both these ventures were started by the F.A.U.

It is not often that the evolution of the social and welfare services can be watched from such close quarters.

Teamwork

On the administrative side, the C.O. had on his staff several British officers (as well as liaison officers and others); and I should like, in conclusion, to take this opportunity of recording my appreciation of the perfect teamwork and co-operation.

REFERENCE

FRIENDS AMBULANCE UNIT REPORT. September, 1945.

A REFRESHER COURSE FOR SCHOOL MEDICAL OFFICERS

The School Health Service Group of the Society organised a refresher course, mainly designed for junior officers in the service, which was held at the London School of Hygiene and Tropical Medicine from September 15th to 19th, 1952. We publish below a first instalment of the addresses given to the course which should be of general interest.

SCHOOL MEDICAL OFFICERS IN RELATION TO THE NATIONAL HEALTH SERVICE

Dr. Andrew Topping, Dean of the London School of Hygiene and Tropical Medicine, in his introductory talk, briefly referred to the origin and development of the School Health Service and stressed the very great contribution which it had made and was making to the health of the people. He was entirely satisfied that from the three angles of prevention of disease, early diagnosis and health education, the service had made a greater contribution in the past 40 years than had any other branch of medical activity. In describing some of his own experiences, Dr. Topping emphasised that it was of the greatest importance that the team which undertook school medical work should also be in charge of infant welfare. If this were not so contacts with and confidence of the parents were seriously affected. He realised that it was in the welfare more than in the school clinic that the doctor had an opportunity of tackling the problem of family control or spacing; he agreed that this was a vexed question but insisted that it was one of the most important medical and social questions of the age. He pointed out that much of the work of the personal health services was made nugatory by ignorance and carelessness on the part of those in the lowest strata of society who were producing recklessly while those in better circumstances were limiting their families beyond optimum limits.

He stressed the value of co-operation from the teachers, and went so far as to say that, without this, the efficiency of the service was seriously affected. He gave several amusing instances from his own experience. Where the teachers were seized with the value of the work, and when cordial relations existed between them and the School Nurse, it was extremely rare for the child with occult or incipient disease or abnormality to be missed; there was something in one of the commoner criticisms that too much time was spent on the solemn ritual of the routine medical inspection. Dr. Topping's experience was that if you could rely on the teacher from his or her daily observations and on the nurse for her findings on her interim visits there was no need to spend the length of time officially postulated for each school child, and energies thus spared should be devoted to the special cases and their parents, to health talks to the children and to continuous contact with interested teachers and to proselytising among the lukewarm.

Dr. Topping then dealt with the relationship between the School Medical Officer and the Family Doctor, pointing out that the crux of the whole question was the extent of the personal relationship existing between them. He realised how difficult it was for a junior school medical officer with an income often less than half of that of the practitioners to meet socially on equal terms, but insisted nevertheless that personal friendship and contact were more than half the battle; he instanced cases in which the family doctor had been entrusted with maternity and child welfare and school medical responsibilities with unhappy results, but gave his opinion that these were due to the existing financial variations and that this did not impugn the principle that the G.P. with the necessary extra training was eminently suitable to undertake much of the work of the personal health services.

Dr. Topping then dealt with the relationship between the school medical staff and the paediatric departments of hospitals and universities. In his opinion it was essential that the latter should descend from their ivory towers and interest themselves in child health rather than in child

sickness; many consultant paediatricians cold-shouldered the school or infant welfare medical officer—although the majority had held appointments in children's hospitals—and instead of encouraging contact and co-operation, poured cold water on the value of their work. In his opinion, the average consultant paediatrician and his junior staff were inadequately equipped for their posts if they had no school medical or infant welfare clinic experience; many of them had no knowledge of the healthy child or of the criteria on which this definition was based. There should, in Dr. Topping's opinion, be the closest co-operation between paediatric consultants and their units, and the personal medical service—each had a lot to give to, and to learn from, the other; there should be a two-way traffic between the two services with periodic secondment of staff and an immediate stoppage of the "old school tie" attitude of so many paediatricians towards the officers of the local authority services: Newcastle and Great Ormond Street had shown the way.

In conclusion, Dr. Topping deprecated the tendency on the part of many school medical officers to belittle their value and functions. Nobody could be doing more valuable work than they were and there was no justification for any apologetic attitude.

Finally, Dr. Topping referred to the title of his talk, "The School Medical Officer in Relation to the National Health Service," and regretted that he had not "stuck to his brief." Questions such as "Whether a family doctor should be asked to approve a child's reference to a hospital" or "Whether the School Medical Service was duplicating his work and filching his responsibility" were, in his opinion, academic. What was needed if the Service was to be, as its name implied, a health service was mutual respect between its components, a realisation of the other person's function and point of view and a genuine desire to promote individual and community health by the best means possible.

PROBLEMS IN SPECIAL EDUCATION

Dr. G. D. Pirrie, Senior Medical Officer, London County Council, gave a talk on the above subject. He said that the development of special schools in this country preceded the formal beginning of the school medical service and has been marked by the great interest paid by school physicians. The 1944 Act placed on the education authority the responsibility of formal ascertainment, accepting or rejecting the recommendation of the school medical officer. In fact, this only emphasised the close tie between the physician and the teacher, a liaison that was always necessary to determine the needs of any child and which could give due weight to the educational, psychological and social as well as medical needs of each child. "De-ascertainment" had been left as the responsibility of the school physician, but if he were wise he would take the same care to consult the teachers concerned. Full consultation with family doctor and his consultant was needed in all cases of physical or psychological defect if a good assessment of each child's need was to be made. The decision to send a child to a special school was a serious one and the parents were entitled to the assurance that it was based on the best of available information and judgment. It was necessary to gain the co-operation of the parents to achieve success.

Reference was made to some special groups not covered by other lecturers:—

Educationally Sub-Normal

About 1·2% of the school population needed education in special schools. Ascertainment must pay regard to emotional and physical handicaps; maladjustment and partial deafness were often difficult to detect. There was also the need for social education and training of co-ordination, e.g., speech-therapy and physical training.

Maladjusted

While it would take some time before the Ministry of Education Committee could be expected to report, there were several points that could well be reiterated.

- (1) The co-operation of parents was essential.
- (2) With admission to a suitable school the work had only begun; the family must be prepared for the child's eventual return and a psychiatric social worker was invaluable. Failing her, the physician and school nurse/health visitor must be prepared to try.
- (3) Day classes for the maladjusted, as developed in Leicester, London, and other towns, had a great, if limited, success.

Epileptics

The right place for an epileptic child was in the ordinary school, but efficient treatment was needed. Teachers and parents must be educated in the needs of the epileptic child and time must be spent in making an assessment of the child's needs.

Physically Handicapped

In the past social and medical conditions had made necessary a higher scale of provision than would now be thought necessary. In Switzerland, the provision was minimal because the ordinary school expected to take a proportion of handicapped children.

Individual Tuition in Home and Hospital

Though provided under a different section of the Education Act, permissive not mandatory, the therapeutic result of the provision of this tuition was most important. In addition, it could prevent the educational retardation that was an additional handicap to children already afflicted. In the house it was important and, moreover, it gave the entrée to the school physician and the chance to develop good medico-social work.

After School

The recent M.R.C. report on the employment of children leaving special schools in Glasgow was most illuminating. The work of the physician continued after the child had left school. No one else was in a better position to help the Youth Employment Officer, but to do so the physician must know something of the processes in local industries.

The local authority's welfare scheme for the care of handicapped persons was of importance to the school physician and he should know of its scope and be ready to advise the Welfare Officer on the needs of particular children.

National Organisations

There were several organisations that were concerned with the care of handicapped children, for instance, the Shaftesbury Society, National Association for Mental Health, British Epilepsy Association, National Council for the Welfare of Spastics. Often these organisations could help where a local authority was unable to act.

Finally, there was no aspect of school health work that furthered so immediate an emotional satisfaction, but nonetheless this was truly preventive work. The important thing always to remember was that this essentially was not an organisational problem but was the individual problem of a child and his relationship with his family, his school, and his community. Each handicapped child presented a specific problem that had to be faced and solved.

THE SPASTIC CHILD AND ITS PROBLEMS

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To appreciate our problems in dealing with the cerebral palsied child, and the problems that confront the child, we should have a clear idea as to what we mean by the term cerebral palsy. I prefer this term to the term spastic, as the spastic child is one who is suffering from only one form of cerebral palsy, namely, spasticity.

The sense in which I am considering this particular affection is confined to that condition in which the child's brain receives damage either before, during or after birth as a consequence of which the child has a disability of movement which is usually general but may be of varying degree and not confined to one particular part of the body as, for example, a hemiplegia resulting from cerebral haemorrhage.

When there is this brain damage, there is a consequential interference with nervous control of the muscles depending on the portion of brain affected and the type of disability varies with the site of the lesion in the brain: (i) In the case of cortical lesion we find spasticity. (ii) A lesion in the basal ganglia produces athetosis. (iii) A lesion in the sub-cortical areas produces rigidity which is often mistaken for spasticity. (iv) A lesion in the cerebellum produces ataxia. (v) In certain types of lesion one finds tremors.

There are thus, broadly, these five types of cerebral palsy and the method of handling each type is different and in each case the method of dealing with the child is individual.

In order to get successful results, therefore, we must always bear in mind these three essential points:—

(1) That the lesion is a neurological one and *not* orthopaedic, though disturbances of movement result from the neurological lesion. The muscles and joints are normal and therefore it is useless to prescribe massage, electrical treatment or physiotherapy as a routine unless you have a clear idea of what you are prescribing it for and why.

(2) And, secondly, that every case varies and the treatment prescribed must be individual. No set scheme of exercises or physiotherapy can therefore be set out. The case of cerebral palsy may be slight or severe and obviously the slight case is not going to require the same supervision or scheme of training as the severe case, nor is the scheme of treatment at the beginning the same as that required when the child has progressed.

(3) And, thirdly, one has to bear in mind that where there is a cerebral lesion it may be slight or severe and, where it is severe, there is more likely to be damage to the intellectual faculties. In many of these cases, therefore, there may be produced variations in mental power apart from that retardation of mental activity that always results where there is limitation of movement.

To get satisfactory results the child must be mentally normal or potentially normal and the assessment of this mental power is one of our most difficult problems.

In order, therefore, to have a clear conception of what forms our treatment of these children should take we must constantly bear in mind what is the development of a normal baby. At birth and for some time afterwards all movement is involuntary or reflex. As the child's nervous system grows and the nerves become myelinated the baby begins to show voluntary movement and his power of movement and mental pictures of movements develop from the stimuli he receives from outside and within. He commences to lift his head, to lift his arms, to be attracted by bright objects and to try to grasp them and so on until he reaches the stage of trying to stand and walk. At first his movements are fumbling and irregular and incoordinated, but slowly they improve. When there is damage to the brain so as to interfere with the development of the nervous control, the child is unable to lift his head or take much interest in his surroundings and as a consequence the

stimuli he receives are relatively few and as a consequence his picture of movement and power of movement are poor. Such a child if left alone will develop some movement but it will be slow and relatively ineffective.

If this child is to develop an approximately normal movement he must be provided with selected stimuli so that he can develop his own picture and power of movement. We cannot develop his nervous control but we can provide those stimuli by which he will, provided he has the mental capacity, develop his own control of movement. If I may give a simple example—a spastic child tends to keep his legs straight and his back also, so that if put to sit in a chair he tends to sit on his coccyx. If allowed to do this his mental picture of sitting will be one of sitting on his coccyx. If you try sitting on your coccyx you will find it much more difficult to use your arms or hands in front of you and if it is difficult for you how much more difficult it must be for the spastic child. If he sits in the right position and *always* sits in that position his idea of sitting will be a correct and an easy one and he is placed in the easiest position for him to move his arms. I trust I need not labour this idea further but one or two things follow from it.

First, it is obvious that the use of calipers, braces and other appliances is not going to assist the child as the picture of movement the child will obtain will be one of being supported by them.

Secondly, where a child has not been given any treatment and has developed some sort of movement, he will have to forget what he has learnt and try to substitute something else for it—an extraordinarily difficult thing to do.

Thirdly, if we are going to get the best results we must get hold of these children before they have developed any voluntary movement themselves, that is, we must get them as babies and the earlier the better.

The early diagnosis of such cases, therefore, is essential and it is in the maternity and child welfare clinics and post-natal clinics that these cases should be picked up. I do not say that they should be diagnosed there, but when a child is slow in developing he should be referred to someone with a special knowledge of cerebral palsy. Diagnosis at this early stage is, in my opinion, very difficult, and it is only by concentrating on these young infants that we are going to make progress in early diagnosis.

When we have reached the stage of diagnosing *all* these cases in infancy then will we be in a position to treat them as soon as they are discovered and ultimately reduce the number for whom special provision will have to be made at a later stage in their lives.

Diagnosis of Variations

In relation to treatment there are a number of problems that arise not only in the straightforward case but in the variations that occur. We are apt to forget that as the condition is primarily a neurological one, the limitation or aberrations of movement of the limbs, though the most obvious are not necessarily the only or even the chief parts affected. Being a central lesion, the whole musculature is involved so that one finds difficulties in swallowing, hence dribbling, incontinence of urine and faeces, irregular respiration, and so on. Further, there may be obvious eye defects such as strabismus, but also less obvious defects such as difficulty in focusing or in co-ordination. In the same way there may be defects of hearing or even severe deafness, either of which still further handicaps the child both physically and by cutting off stimuli necessary for his physical and mental development. Where any of these defects exist they provide a further problem in treatment but also, as has been so well pointed out by Miss Dunston in her book on the "Educability of the Cerebral Palsied Child," in the education of the child—a point which has not been sufficiently recognised in the past.

So long as these problems are recognised they will be looked for, but my experience has led me to believe that they are not always recognised. Not infrequently we see children who have been referred to us who are deaf or partially so,

or blind, partially blind or with defective vision of one kind or another, which defect has not been previously recognised. Only recently we had a boy who had been in a residential school for handicapped children, whom we found to be partially deaf—his teacher and those who dealt with him were unaware of his partial deafness, however. He was treated, provided with a hearing aid, and is now attending an ordinary school.

All these children present problems in the educational methods that should be adopted for them, but the difficulty varies according to the type and extent of the disability. In slight cases the children may be able to attend an ordinary school, but the teacher, and those who deal with the child, should be aware of his disability and be instructed in the best methods of dealing with him. Non-recognition of the fact that the child has some disability may lead to difficulties with the child and an accentuation of his shortcomings with a consequent adverse psychological effect and resultant setback in the child's physical and mental progress.

Problems for the Teacher

For children who are more severely affected special methods must be adopted either in classes for the physically handicapped or even in special schools for cerebral palsy cases such as those already set up in Birmingham, at Ivy-bridge and elsewhere. In dealing with this latter class of case the teacher should recognise and be instructed that:

(1) There may be defects of vision, or hearing, in addition to the child's other defects. If these defects are not recognised, the methods of teaching may accentuate the child's difficulties, and, instead of progressing, the child will not only retrogress but his physical progress outside the classroom may also be interfered with. Further, non-recognition of these defects may lead to a conclusion that the child's mental condition is worse than it really is, and as a consequence the standard of work set may be below the child's mental ability with a consequent adverse psychological effect, which it should be our aim to avoid.

(2) Having recognised these difficulties, the teacher has also to adapt her methods of teaching to suit the individual child, and this requires considerable care, observation of the child, and attention to its particular needs. It is useless, for instance, to expect a child who has severe athetoid movements of the fingers and hands to hold a pen and attempt to write, but such a child may be able to hold wooden blocks with letters on them and so spell words to begin with and, later, by appropriate adaptation of teaching methods, can be taught to read, write, do sums and other things. As their physical condition improves so the method of teaching requires modifying. Not only must the teacher adapt her methods for the individual child but in order to do this she must recognise that the handling of the different varieties of cerebral palsy is different. The handling of a spastic child is different from that necessary for an athetoid. To do this she must have a knowledge of the underlying cause.

There remain a number of children who are so severely handicapped that they cannot attend one of these special schools, and for these, home tuition is necessary. Such cases should be kept to a minimum as the child misses the contacts he should have with other children which help in his rehabilitation.

It will be obvious from what I have said that all those dealing with the child, including the teachers concerned, should have a period of instruction in a cerebral palsy unit before taking on a class of these children.

Problems Facing the Child

Having dealt with the teacher's problem, before I continue on the educational aspects, may I say a few words upon the problems which face the child?

We are apt to forget that though such children may have abnormal movements or severe handicaps their outlook on life is that they themselves are like ordinary children but, unfortunately, handicapped in carrying out certain activities.

The fact that their activities are restricted does not mean that their brains are therefore defective, nor does it make them feel that they are anything but normal, and our approach should be to encourage this outlook and, so far as possible, make them mix with normal children. Unfortunately, the child cannot explain all this to us, and therefore it behoves us to try to fathom their desires and help the child give expression to them. The fact of their mental outlook has been brought home to me on many occasions. In photographs of these children on admission I have been struck by the frequency with which the child's expression is one of frustration and unhappiness, an expression which is quickly replaced by a more normal expression once the child is properly handled.

Again, on one occasion, I found the children in our cerebral palsy unit doing a little play in the day-room in the same way that healthy children do. The fact that few of them could walk, and one or two only speak indistinctly, did not deter or even bother them—they were behaving as they knew normal children do, and their imaginations filled in any little gaps or lapses there may have been.

This attitude was well expressed by one athetoid girl, who showed a finger painting to one of the doctors with the remark, "It may not be much, but if you only knew what fun it was after not being able to do anything." The painting, though rough, as it was bound to be, showed a wonderful sense of design and colour which made it evident that her brain was quite bright.

All such activities, then, should be encouraged, and these children should have as many varieties of experience as other children have, if it is possible.

We send these children to concerts and plays with the others, and one has only to watch them to realise that they take it all in, and such stimuli are helpful in their development.

The Aftermath to Hospital Training

Of the other problems that face us I suppose the chief is what is to happen to such a child when he leaves the unit, if he has been in one. In all this instruction and handling we should bear in mind that if the child has to go into a unit it can only be for a limited period. Once he is set on the right lines he can be discharged, but he will retrogress unless he is supervised. This supervision must go on for years, and it is particularly the mother who must exercise supervision and, therefore, she above all others requires instruction in how to handle her child. Once she has received this instruction, preferably for as long as she can spare the time, she can bring the child to the clinic periodically. In the less severe cases she can be given instruction and be kept under more frequent supervision. Then there comes the problem of the child's schooling at home. Some of these children, though fit for an ordinary school intellectually, have difficulty in obtaining admission because of some abnormality of movement. Head mistresses and teachers should be instructed regarding such children and not be empowered to refuse admission.

A somewhat similar difficulty may be encountered if the child is recommended for a special school for physically handicapped children. I feel strongly that, generally speaking, the solution of this problem is to train the teachers in these special schools how to deal with the handicap of cerebral palsy rather than try to set up special schools for cerebral palsied children. Except in very large industrial areas the numbers of such children are not sufficient to warrant such special schools but where they are set up they should be used as a training-ground through which the children pass to the special or ordinary schools.

The fact that a child who is unable to walk is therefore excluded from a special school does not seem to me an intelligent method of dealing with the education of such children. I have at the moment a spastic child who, although deaf and dumb, is quite evidently intelligent, but because she cannot walk upstairs cannot be admitted to a deaf and dumb school.

Once the child has passed the school age, what is to be done with him? The problem of obtaining some training for such children is one that we are constantly faced with. There are many institutions where physically handicapped children are trained for some occupation, but usually such children are selected rather carefully for such training. For economic reasons such selection may be necessary, but if we take the long view it is surely desirable that we should encourage in every way the development of special training centres, or even homes, where cases of cerebral palsy of the more severe type can be trained to carry out some occupation which would contribute something towards the cost of their maintenance. If the patient can only be trained to use his arms and hands while sitting and is unable to use his legs he may undertake useful and remunerative work which would not only help him financially and reduce the burden he might otherwise be on the State, but would also effect the even more important object of building up a sense of self-respect and responsibility and a feeling that his life and work are not only of value to himself but a contribution towards the community of which he would then feel himself a responsible member.

A CEREBRAL PALSY UNIT WITHIN A DAY SCHOOL FOR PHYSICALLY HANDICAPPED CHILDREN

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"What sculpture is to a block of marble, education is to the human soul."—ADDISON.

There is every justification in these presumably more enlightened days for us to accept the fact that children suffering from the effects of cerebral palsy are also handicapped in the true sense and that if taken sufficiently early most sufferers can be assisted to overcome their disabilities to a greater or lesser extent.

This in itself is an admission which should be applauded for, in spite of Dr. Little's original description of the condition over 100 years ago, it constitutes a clear advancement in thought even over fairly recent times: it is only a very few years since palsied children were to all intents and purposes forgotten save by a few. The greater proportion of those "few" naturally constituted the immediate and responsible relatives, and which of us can now gainsay that their burden and preoccupation with their problems was oppressive? Many of these parents have for long had grave misgivings and indeed extreme depression as to what the future held in store for their handicapped offsprings and, not unnaturally at times, for their own place and future in society also.

In the past we as a community have been too ready to regard these children as being so mentally incapable and physically unable of deriving benefit in the spheres of education and rehabilitation that we have tended to allow this acute human problem to go by default. This, as has been stated on other occasions, is no doubt one of the reasons why a proportion of these unfortunates has become entangled in mental deficiency institutions, having been placed there in error, or, if you prefer, because of erroneous diagnoses.

While such a confession may appear deplorable to the uninformed lay mind it is, I feel in effect, not so much a matter of negligence upon the part of our profession but rather a defect in our teaching and consequent lack of detailed knowledge upon this problem which now confronts us. Judging, however, by the numerous lectures arranged in refresher courses for School Medical Officers during this last few years it is very evident that this section of our profession has the subject much at heart and is alive to the implications.

During these past few years we have all heard and read much about Dr. Carlson—himself a severe case of diplegia

and an outstanding example of the heights to which a proportion of palsied children may rise by painstaking personal and sympathetically assisted application. We can all take heart by such sparkling examples as this, but we must also be vitally concerned how best to advance the collective lot of palsied children everywhere whenever possible.

There are those obviously much better equipped and more experienced than I to discourse upon the clinical aspects of the disease. I suspect, however, that I have been invited to say something upon this subject primarily because, in Coventry, we have latterly been able to open a "Spastic Unit" within a day school for physically handicapped children. Before I give due mention to our experiences during this past 12 months, however, I should like to offer a few generalisations. Certain points will inevitably be repetitions of what have been stated by others on previous occasions, but from a practical point of view they are new to us in Coventry and can bear a restatement.

Types of School for Handicapped Children

Two main types of school readily come to mind, namely, the residential special school and the day special school. I will not attempt to dwell on the former category, but it seems likely that those who thought along the lines of a residential school had particular problems to deal with—maybe a paramount need for continuous supervision and the feeling that children might progress more adequately if isolated from undesirable home environment and influences or, alternatively, because of geographical situation. The difficulties attendant upon the transportation and congregation of afflicted children, day by day, at a point within a widely scattered administrative area and perhaps the prohibitive financial implications may have seemed insurmountable obstacles.

The other theorists, not having overriding geographical difficulties to contend with as of primary moment, might well have presupposed that any real progress for C.P. children would best be achieved with the influence of the home and family as a beneficial and dynamic background. By co-operating with the medico-educational team, the parents would generally derive greatest personal satisfaction in witnessing progress for their children.

This view I am inclined to believe was probably one of the most important considerations which Mr. and Mrs. Paul Cadbury had in mind when they constituted Carlson House day school in Birmingham. There appears every indication, too, that before her death in 1951, their youthful palsied daughter had great influence for good, and the Cadburys, in initiating this venture, were quick to realise that other parents, in following the professionally supervised progress of their children, would derive as much satisfaction as they had done through their daughter's achievements. As Prof. Capon said, speaking of children generally, in 1947, "... it is important to preserve and encourage the natural relationship of the child with its parents."

Moreover, in dealing with C.P. children, most of whom have inherent intelligence to greater or lesser degree—as, say, opposed to less receptive mentally deficient children—it seems more desirable to attempt simulation of the educational routine occurring in the ordinary run of schools.

Naturally, with so many superadded factors and complications to take into account, it is not possible to carry this point comprehensively but it is nevertheless good psychology to have a daily educational routine—no matter how simple—in order to stimulate the children with an early sense of achievement and attempt to place them on common ground with those more fortunately situated.

Advantages and Disadvantages of a Cerebral Palsy Unit within a Physically Handicapped School

In latter years, and especially since the advent of the National Health Service Act, we have come by constant repetition to be warily inclined towards that much hackneyed word "co-operation." Co-operation, however, is a

sine qua non which must be accomplished in the establishment and management of such a school as we have under consideration. It has been said that cerebral palsy is "... the most neglected condition of childhood" (Carlson, 1946), or alternatively, that it is "... perhaps the most neglected field of medicine, education and welfare" (Bruner, 1952). If this be so it becomes any one of these latter interests to now stake individual priority claims in order to achieve the future well-being of palsied children, although Bruner states a fundamental truth when he says "It is primarily a medical problem in its basic concept." Nevertheless, while medico-therapeutic activities are of fundamental importance, they should, ultimately and ideally, be aimed to improve the educational attainments of these children.

Unfortunately, acute divergencies of responsible opinion, particularly relating to administrative and technical liaison, have been experienced in certain pioneering ventures, and if allowed to continue unchecked the repercussions to such establishments, their staffs and, most important, the children concerned, could be most unhappy or even disastrous.

Miss M. I. Dunsdon, M.A., in her admirable and detailed book, "The Educability of Cerebral Palsied Children" (1951), has seemingly had experience of this difficulty, for she says "... there is at present quite considerable danger of children being provided with physical therapy centres which will have some educational functions, instead of providing them with, or providing for them in, special schools which would have facilities for physical therapy."

Reading between the lines of this and other statements, one gathers that Miss Dunsdon is not unduly enamoured or optimistic concerning the future of dual-purpose type schools in that they may tend to become mere establishments for interesting clinical entities and for those types who are liable to derive little benefit from education.

This thesis, however, could well be applied in reverse for there is also the experience of responsible educational staff pressing for the admission, mainly on grounds of sentiment, of children who, by all standards of reasonable and sympathetic medical assessment, are entirely unsuitable and who could derive no possible advantage even from a prolonged stay at such schools; besides sterilising much needed and valuable accommodation.

The fact must be faced by those bodies who contemplate the inauguration of dual-purpose schools that the handling of most cerebral palsied children is, by the very nature of the condition, upon a somewhat different plane to that found necessary for most other types of handicap.

This new field of medico-educational interest is potentially charged with considerable partisan feeling and it is not a matter which should be passed over lightly. There is enormous scope for research and for the establishment of criteria which will ensure the harmonious localised working of different professional interests. It is imperative that a happy unity of purpose should be mutually cultivated from the start since continuity of outlook is essential for C.P. children.

Moreover, because in future the greater financial resources for these schools will inevitably tend to come from the public purse, the need for achieving complete harmony and understanding is enhanced and becomes of paramount importance. It is equally essential that those who represent the tax and ratepayers should avoid the pitfall of biasing their judgments unduly in favour of the comparative importance of education or therapy since this could be a potent factor in causing disharmony and consequent unrest among staff, children and parents alike.

It is the opinion of many workers in this sphere that the severity of physical handicap in cerebral palsy bears no direct relationship to the degree of cerebral dysfunction or potential scholastic attainment. Coventry experience tends to support this viewpoint and this could well be instanced in the cases of many severely affected athetoids.

It is clear, therefore, that no affected child should be denied the opportunity of possible benefit unless there is agreed team conviction that it would be useless to proceed.

It is upon such contentious grounds as this that those responsible must unite to reach vital and just agreement: this cannot be suitably achieved if even one senior member of the team remains aloof and "superior" from the deliberations of the rest.

In spite, however, of all these possible snares the view that dual-purpose schools are inevitably destined to failure is, in my opinion, an erroneous premise: time and greater geographical experience will provide an answer. It seems unduly pessimistic, however, to assume that educational and therapeutic ideologies are so inherently at variance that their locational divorce is inevitable.

It also appears as common sense that local authorities contemplating the provision of remotely separated professional facilities will at once be faced with enhanced expenditure while children, staff, and possibly parents, will be saddled with undue inconvenience and waste of precious time (e.g., think only of the additional transport required). Even in a compact county borough these undesirable factors would be considerable and at first sight would appear to be a means of impeding the scheme.

In establishing a dual-purpose school it is perhaps desirable, though by no means essential, to place someone in nominal *general* charge: solely to co-ordinate by mutual arrangement the educational and medical aspects of the service on the spot. This being so there can be few dissentients from the view that this should be the head teacher.

The latter, however, should have considerable experience and tact and be gifted with a "Solomon-like" wisdom in his administrative approach. He would be well advised to accept the ingrained intra-professional loyalties, ethical viewpoints and practices of the medical staff and their auxiliaries as matters not lightly to be set aside, and in doing so he will gain loyal reciprocity. I have never yet had experience of a doctor having the temerity to meddle with a teacher's professional duties.

I have spent some considerable time in ventilating my views upon this important matter of co-operation since I believe it to be the most vital issue for initial settlement in a dual-purpose school. Once happily solved, then the battle for the future progress and well-being of the children—and I particularly refer to the cerebral palsied—is already half won.

Parents

Another direction in which this field of co-operation might well be encouraged with advantage is towards the parents. It was our recent experience in Coventry that no matter how quickly the local authority pursued their plans for cerebral palsy facilities in their special school it was never sufficiently brisk for some parents.

This, however, I believe was largely due to reaction engendered from the lean years when they and their palsied children were in the wilderness and during which time they saw little to enthuse about upon the horizon.

Herein, too, the headmaster has splendid opportunities for good since by arranging various social activities on the premises (e.g., open days, concerts, sales of work, parent-teacher meetings, etc.), he can stimulate that additional mutual co-operation which is so helpful and necessary in bringing people with similar interests together to discuss their difficulties.

From the medical standpoint, monthly interviews are most useful for advising parents how best to deal with their related problems and are a means whereby they can be encouraged to reinforce the instructions given to the children at the centre by the medical auxiliaries (e.g., taking advantage of relaxation periods when children are more receptive to simple and helpful suggestions).

Coventry Details and Routine

We do not make presumptuous claims for the opening of our Cerebral Palsy Unit in Coventry. Neither am I lacking in appreciation of the magnificent and timely pioneering efforts of certain organisations and assiduous workers in

Birmingham, Carshalton, Croydon, London and elsewhere, nor of the exhortation of Dr. Jean McNamara (1939) who, in Australia, said: "It should be realised that the answer to the problem of the spastic does not lie in the establishment of schools for older children with deformities. It is a mistake to spend all available funds on these older children while another crop of babies are forming other deformities." The importance of early diagnosis was also stressed by Dr. Agassiz in his address to the School Health Service Group of the Society two years ago and by Mrs. Collis on a previous and similar occasion (1948): it is a theme which cannot be over-emphasised. It is by early recognition and adequate attention in the early formative years that the ability of these children will be best encouraged to help them compete later, on more equal terms, with normal children and achieve useful places in society.

Since 1948 we have met this position more adequately in Coventry by attempting to trace affected pre-school children and we have the full co-operation of paediatric and orthopaedic specialists in bringing such cases to our notice at two years of age or even younger. Other measures could also possibly be tried in future to improve the tracing procedure (e.g., municipal nursing staffs with suitable training and with co-operation of general practitioners).

By these standards, then, the policy of establishing special schools and units for school aged C.P. children can only be of a second best nature; but meanwhile it is most essential that such facilities should be available.

Nevertheless, we were happy to be one of the earlier local authorities to establish a "spastic" unit within the curtilage of a school for physically handicapped children and, with certain reservations which I shall mention shortly, this is in line with the accepted general policy of increasing the field of social contacts for these children.

From the first our school medical efforts received willing and unambiguous practical support from our local specialists in orthopaedics and paediatrics respectively. The vocational enthusiasm of the authority's newly appointed physiotherapist and speech therapist and the elation of my own medical staff, because of a measure which would obviously have the effect of consolidating their prior work and opening up wider vistas for these children, augured well for the future.

It would be churlish, however, if, coming from the Midlands, I did not readily acknowledge the influence which the Carlson House project, opened in September, 1948, had in the establishment of our own unit. We were grateful for the helpful advice and practical assistance offered to us initially by their experienced staffs and we were privileged to have this exciting pioneering effort on our doorstep.

Prior to 1947 the Coventry School Health Service was catering for a proportion of C.P. children from a clinical point of view through a beneficial liaison with the local voluntary orthopaedic clinic and hospital for children. These cases had varying amounts of treatment depending largely upon the degree of interest and co-operation emanating from the parents.

The Local Education Authority provided home tuition for a number of cases but, from recollection, few such bodies in the country appear to have had a true conception of the comprehensive nature of the problem.

The real boost to our investigations, however, came in late 1947, upon the establishment of the Midland Spastic Association which was constituted to promote the further welfare of children suffering from "... spastic palsy and allied conditions." This phrase was used "... to embrace a series of clinical conditions (whether associated with mental disability or not) made manifest by muscular rigidity, paresis and uncontrolled movements": and for convenience sufferers are now seemingly classified generally as spastics, athetoids and ataxics.

Shortly after, in early 1948, through the good offices of colleagues in Birmingham, we were fortunate to enlist the nearby interest of that experienced research team, Asher

and Schnell, who, in spite of their University and other associated commitments in the Birmingham area, were enabled and eager to support our school medical service in the detailed ascertainment and assessment of C.P. children in Coventry. Their services, given quite spontaneously and voluntarily for a while at a weekly session, were of invaluable help. A little later the Carlson House physiotherapist also offered her welcome services voluntarily at a Saturday session for a limited period.

Prior to the initial clinic held in Coventry by Dr. Asher and her colleague in May, 1948, my medical staff had gathered a provisional list of 26 presumed C.P. children, some of whom had already been seen by Dr. Asher in Birmingham. Between this time and September, 1948, when Carlson House was opened in Birmingham, a major school medical ascertainment was conducted in Coventry, and in July, 1948, I was able to send our Director of Education an initial list of 36 children of school age coming within the designation of cerebral palsy.

By January, 1949, a total of 39 cases had been examined in detail by the Midland team and of these two were eliminated (not being C.P.s), 23 included in the remaining 37 had spastic conditions (i.e., 11 hemiplegias, five paraplegias and seven quadriplegias), seven more were athetoids, one was a congenital tremor. A further 10 cases then remained outstanding for examination by the team.

These numbers appear relatively small and perhaps give little idea of the work involved in tracing and ascertaining, but they do show something of the thoroughness because at the beginning of August, 1952, the total number of ascertained C.P.s on our books was only at 48 and this we feel is now a reasonably stable figure. These modest statistics also show in clearer perspective the comparative limitations of research into tracing and ascertainment prior to 1947, which one feels may have been symptomatic of the situation in most of the country at that time.

Asher and Schnell (1950) have estimated the incidence of cerebral palsy in children of school age in Birmingham as 0.9 per 1,000, while in Leeds the figure as quoted by Holoran (1952) was 1.6 per 1,000.

With a calculated school population of 39,722 in May, 1952, our 48 ascertained C.P.s put the Coventry figure at 0.83 per 1,000. Eight of these children have minor involvement and are at no real disadvantage in attending ordinary schools.

It thus becomes apparent from these figures, supplied to the Coventry Education Department in July, 1948, that there were sufficient children ascertained to justify the opening of a special unit as soon as opportunity and appropriate premises became available.

By June of 1949 the Coventry parents had evidenced an acute interest in Carlson House progress, and I was pleased to meet an informal delegation (June, 1949) and to outline the progress which had been made in medical ascertainment in Coventry and something of our thoughts for furthering the lot of C.P. children in the future. By December of the same year the national interest in the need for appropriate education for spastic children became more evident at local level by earnest protestations for a school on the Carlson House lines (December, 1949).

From then it was only a matter of limited time before the local authority had gained permission and the wherewithal to open a "Spastic Unit" within the curtilage of their proposed Physically Handicapped School: thereby extending the previously circumscribed educational facilities for the cerebral palsied and providing a means whereby closer, more convenient and more economical links could be provided between the educational and medico-therapeutic activities.

Baginton Fields Cerebral Palsy Unit was opened on October 24th, 1951, and the main part for other physically handicapped children in January, 1952, within a hostel originally erected for the essential needs of displaced Asiatics during and immediately after the late war. Subsequently it was used for other purposes, one of which was to give hospitality and urgent dietetic treatment to groups

of Dutch children suffering from acute malnutrition following upon the occupation and deprivations within their country.

One initially envisaged this building to serve as a temporary measure pending the erection of a new one specifically designed for handicapped children: a "hope deferred" indefinitely because of other urgent school building priorities.

On grounds of economy and general convenience, it was decided to commence a "Spastic Unit" within the separately located sick bay of the hostel and here, later, became enconced the physiotherapy, speech therapy and medical suite. One of the larger rooms was set aside for severely affected C.P.s who, for good and sufficient reasons, it was felt should not at first be brought into prolonged everyday contact with other physically handicapped children and less severely affected C.P. children.

The main block which now catered for these latter was originally designed on liberal lines for hostel kitchens, laundry, dining and recreation halls, administrative and several other side rooms. These, with modest adaptation, were made suitable for class-rooms, rest-room, kitchens, dining hall, etc. Radical sanitary alterations were also necessary for the needs of these children.

The kitchens and equipment were on such a scale as to have the added economical advantage of being used to supplement considerably the requirements of the School Meals Service in the city. The general layout was possibly unwieldy for a scheme of this nature, but it was felt that good work could be accomplished there until better facilities became available.

General Information and Statistics

The Education Authority, through its Special Services Sub-Committee, is statutorily responsible for the provision of the services rendered.

At July 29th, 1952, the school was catering for 85 children, of which 29 were C.P.s. The other physically handicapped categories include such conditions as post-polio myelitic states and other paralytic conditions, tuberculous joints, cardiacs, recurrent bronchitis and the other familiar affections.

At present (September 12th, 1952) we have 26 C.P. children in the special school as follow:—

Spastic paraplegia, five; various hemiplegias, nine; spastic quadriplegia, two; spastic diplegia, four; athetoids, six.

(a) *Teaching Staff.* One headmaster; one second master; six class teachers (three assigned to cerebral palsy unit); one secretary. The authority's educational psychologist has surveyed the children, visits occasionally, and makes her recommendations.

(b) *Consultants.* The paediatrician and orthopaedician, kindly and of their own volition, each give one session per month approximately.

(c) *Medical Staff.* One assistant school medical officer attending as necessary; one senior assistant school medical officer, who is responsible for achieving day-to-day administrative and clinical liaison and who also gives certain practical application on the clinical side herself.

(d) *Medical Auxiliaries and Nursing.* Establishment is for two physiotherapists and one half-time speech therapist; one school nurse visits weekly to deal with minor ailments.

In addition, we have the helpful part-time services of a splintman, who is also concerned with adjustments to shoes and other personal equipment.

(e) *Other Staff.* Four full-time orderlies (two female) for carrying children and giving attention to their personal needs. Necessary cleaning and kitchen staff.

Transport. The medical staff decide if transport from home or from a central point is necessary in each case. Three buses do the picking-up and return the children at 4 to 4.30 p.m.

Official School Hours. From 9.30 a.m. to 3.30 p.m.; lunch time, 12 to 12.45 p.m., with a following rest period until 1.30 p.m. Ordinary school holidays operate.

Routine for Admission to the C.P. Unit

Prior to acceptance and admission, all C.P.s are examined by the paediatrician, orthopaedic surgeon and senior assistant school medical officer acting as a team, and this preliminary joint examination usually takes place in hospital. Several interviews are undertaken by the senior assistant school medical officer at the child's home or at the office to assess the extent of the physical handicap and its possible relation to schooling and also to obtain the "feel" of the home background.

Findings of recent years support the view that mental defectiveness is not a usual concomitant of cerebral palsy, especially of the athetoid types who are basically intelligent (Collis, 1948). Capon (1950) informs us that 50% of C.P.s are mentally retarded, however, and presumably the majority of these are within the truly spastic category.

It is agreed by the staff that physical handicap is to be no initial barrier to acceptance providing the child is capable of sitting in some type of chair and of indicating his everyday natural needs. Double incontinence is an obvious drawback although we have admitted one child with this added handicap. Partially sighted C.P.s are not admitted, whereas the partially deaf type are, since they can benefit through lip reading and the use of hearing aids. Other present admissions include two severely afflicted quadriplegias of the athetoid type, one of whom is unable to speak. Each is now 16 years of age and although there has been encouraging progress, their great physical handicaps and considerable mental retardation emphasises the need for early ascertainment and skilful handling for all such future cases.

Local experience shows that the special school is of considerable help to the orthopaedic services of the city since a high proportion of cases (including C.P. types) discharged from the Children's Orthopaedic Hospital have a continuing need for special schooling.

From the mental aspect an intelligence quotient is usually taken, but this is not essential to admission since other considerations are of equal importance. The greater the physical handicap, the less notice is taken of the I.Q. The lowest ascertained I.Q. we have is 51, and I understand there are also a few under observation lower than this. For the present the staff invariably errs on the generous side in the process of admission by allowing trial periods in certain quite doubtful cases.

Conversely, I think it is sometimes the experience that certain voluntary organisations are more selective and tend to reject the lower grades: one such I know of admits from a tentative 80 plus up to a reliable 130 I.Q.

A major criterion for acceptance into Baginton Fields School is therefore that the child will probably derive benefit from the combined medical and educational facilities, irrespective of any I.Q. which may or may not have been obtained. This is apparently in line with the method practised by Collis (1948), who indicated that she "... would measure the intelligence of each child by its response to treatment" ... rather than resort arbitrarily to routine I.Q. testing.

Great care is taken by the specialist team to try to prevent mentally defective children and secondary spastic conditions getting through the screen, otherwise valuable places would be wasted.

Audiometric tests are taken for all C.P. children since their handicap may be enhanced by failure to perceive various degrees of deafness.

Medical and Medical Auxiliary Attendances and Routine

The two specialists previously mentioned attend the Cerebral Palsy Unit every four weeks at least, and sessions usually last two and a half to three hours. An average of eight or nine cases are seen per session.

These monthly sessions are made the opportunity for team discussions, at which all doctors and auxiliaries are present, as also is usually the appropriate class teacher.

Speech Therapy. The average time spent with each child per three-hour session is 15 to 20 minutes, although this

is quite variable from day to day. Attendances are therefore fluid, but about six or seven are seen per session. It is invariably the case that children are dealt with individually and it is not practical to instruct them in groups. Some children are seen three times weekly and others daily.

Physiotherapy. The average time spent per four-hour session with each child is about 20 minutes so that from 10 to 12 children can be dealt with.

At times it is possible for the physiotherapist to give instruction to children in groups of up to 12.

The Speech Therapist and Physiotherapist also attend at meal times to instruct children to breathe and swallow properly while eating and drinking, and to attend to specialised apparatus respectively.

The majority of children need some form of physiotherapy each day. It is fitting to comment that the ability and experience required of physiotherapists to undertake this class of work efficiently should be of a high standard. It does not appeal to all physiotherapists and those accepting appointment usually have a definite vocation to help handicapped children of this type. They should also be adept and experienced in the methods of instrumentation (e.g., splints, calipers, strappings, etc.), and the possession of an orthopaedic nursing certificate is of advantage.

The work of physiotherapists and speech therapists is of a sensitive nature, and they need to develop complete rapport and concentration with the children. It is therefore desirable that they should be given considerable scope to exercise their talents without irritating extraneous diversions.

Pros and Cons for a Dual-Purpose School

It is my experience of medical opinion that the more severely handicapped cerebral palsies should not, at first, be mixed indiscriminately with other types of physically handicapped children, until their uncoordinated movements are controlled and their confidence established.

There are educationalists, however, who take a different view and press for a comprehensive admixture from the start. Perhaps in the fullness of time they will come to appreciate the advice of an expert and "architect" in this work, namely, Dr. E. R. Carlson himself. The latter, in his address to a meeting of the British Welfare of Spastics Association, is reported as saying (*B.M.J.*, 1949) "... The tremors, writhing motions and grimaces were so intimately tied up with the thought processes that it was difficult to regard these movements as something apart from feelings. Excitement and lack of concentration aggravated the condition; *with tranquillity and peace of mind the motor activity became much more purposeful.*" (Italics mine.)

Great disservice, therefore, can be done to severely afflicted cerebral palsies by haphazard mixing, especially in the early stages of special school life. Added disadvantages might well be as follow:—

(a) Extreme noticeability of child by other children, who themselves are in impressionable states.

(b) Objections by misunderstanding parents to their children being mixed with "mental looking" types.

Bearing these factors in mind, the danger of precipitating such positions could be avoided. Later, when the child has acquired stability, the advantages of increasing every day social contacts are apparent and do not require any further enlargement by me.

Less severely affected cerebral palsies (e.g., hemiplegias) are of course educated with other physically handicapped children, and their progress is quite satisfactory.

Advantages of a day unit are:—

(a) Continuous contact of the child with its parents and, it is hoped, with a stable family environment.

(b) Opportunity for increasing contacts with the external environment.

(c) Parents being brought continuously into the "picture" to the mutual advantage of themselves and their children.

As yet it is early to offer a critique upon progress at our Baginton Fields Unit since the only assessment available to me at present is one of physical achievement: this

latter being considered as highly successful. The headmaster's general report is contemplated as being printed for early 1953, and his comments upon the mental attainments of cerebral palsied children should be of much interest.

It is not unnatural with a dual-purpose innovation of this character that there should be "teething pains." But with greater experience these should subside and since good work has been done we are greatly encouraged for the future of our cerebral palsied children.

My great indebtedness and sincere appreciation is due to Dr. Margaret M. R. Gaffney for much helpful information supplied and subsequent perusal of the manuscript.

REFERENCES

- AGASSIZ, C. D. S. (1948.) *Public Health*, 151.
 ASHER, P., and SCHONELL, F. E. (1950.) *Arch. Dis. Childh.*, 25, 360.
 BRUNER, R. E. (1952.) *The Spastic Quarterly*, March, 4.
 CAFON, N. B. (1947.) *Public Health*, 23.
 ——— (1950.) *Brit. Med. J.*, 2, 1051.
 CARLSON, E. R. (1949.) Report of address to British Council for Welfare of Spastics. *Ibid.*, 2, 753.
 ——— (1946.) *Lancet*, Annotation, 2, 354.
 COLLIS, EIRENE. (1948.) *Public Health*, 151.
 DUNSDON, M. I. (1952.) "The Educability of Cerebral Palsied Children." Newnes Publishing Co., Ltd. 117.
 HOLORAN, IRENE M. (1952.) *Brit. Med. J.*, 1, 215.
 MACNAMARA, JEAN. (1949.) *Public Health*, 122.
 "Parents' Circle." News Bulletin of the Midland Spastic Association, June, 1949, 3.
Ibid., December, 1949, 3.

CORRESPONDENCE

A HEALTH DEPARTMENT REGISTRAR?

To the Editor of PUBLIC HEALTH

SIR,—I should like to make the following comments on the letter from "XXQ" in *PUBLIC HEALTH*, December, 1952, p. 36, under the above title:—

Twenty years ago a schoolmaster uncle of mine devised a form showing medical and educational details of every pupil which was to travel with each pupil through his school life. A modified version of the form was used by one large local education authority (and may still be used). Therefore a continuous record is practicable and has in fact been devised and used.

When an "infant" enters school its child welfare record card should be available to the school medical inspector—this is in theory a routine procedure.

Before a child leaves school, at the final medical inspection a card is also filled in for the Ministry of Labour's Juvenile Employment Bureau stating that the school leaver is fit for "all work" or stating in broad terms the type of work for which unsuited, e.g., "work involving eye strain," "acute hearing," "dusty atmosphere," "damp," "hard manual work," "long hours" and "much standing." Therefore, each school leaver entering industry should have a "Pulheems"—principle card.

Every National Health patient, i.e., almost the whole population, now has a medical record card from infancy till death. In theory baby welfare clinic medical officers and school medical inspectors should let the general practitioner know of any illness needing treatment and any papers should be in the record card (which is a tough envelope) and similarly any reports from hospital or dispensary should go in this envelope.

Granted that it takes little to upset the working of the arrangement for the "baby welfare" card to follow the child to school, and that the sum total of five years' attendance at the infant welfare centre, and 10 years' medical and dental inspection and treatment is that the local labour exchange gets a printed card with an "X" in the column "fit for work of all kinds"; granted that the general practitioner's notes are mere fragmentary notes of major events plus prescriptions of successful mixtures; and granted that a full record of good and bad health is wanted for everyone,

- Who would compile it?
- Who would keep it when compiled?
- Who would know of its existence?
- Who would have access to it when compiled?

The answers to these questions might be:—

(a) In many ways the Medical Officer of Health to the local health authority (county council and county borough) who is also

usually School Medical Officer to the local education authority is best placed to make an intelligent redaction of infant and school medical notes, writing in any ancillary notes from the many social agencies caring for the young (child guidance, probation officer and all the others). The county or county borough Medical Officer of Health would also need notes on sanitary and, perhaps, social circumstances of the home, and would need to augment his health visitor's notes on these points by enquiry of county district medical officer of health (in counties) or sanitary inspector (in county boroughs). While these notes are made, the baby will have become the school leaver of 15. Presumably during those 15 years any "medical" matter of moment will have been the subject of immediate correspondence or consultation between medical officer of health and general practitioner.

(b) If such an abstract were prepared in a form agreed by all I think that as far as the public health registrar can go for a start. The medical officer of health of the local health authority could keep the notes on a card of the same size and material as the continuation cards that are used by panel doctors. A duplicate of each card could go to the patient's doctor, to keep in the medical record envelope-style card.

(c) The Society of Medical Officers of Health could advise on who should know that this information is available. Possible groups are hospitals and dispensaries, the Services and certain medical enquirers (e.g., epidemiologists making a survey of a particular disease). There seem to be many other possible claimants—broadly, all organised bodies promoting the welfare of the individual.

(d) The answer to this is bound up with that to (c).

Yours faithfully,
 "XXA."

February 4th, 1953.

FRACTURED INCISOR TEETH

To the Editor of PUBLIC HEALTH

SIR,—I should be grateful if you would allow me to correct some erroneous impressions which may arise from the report of the paper I gave on "Fractured Incisor Teeth" which was printed in your February issue (p. 82). The space allotted to this report was very generous, but in the condensation which was necessary the sense of the original paper has been lost to a certain extent.

There is a tendency at present for many cases of fractured incisor teeth to be referred for specialist treatment. This may have been justifiable in the past when dentistry was more of a craft than a science based on a sound knowledge of the physiology and pathology of the dental tissues. With such knowledge, however, treatment can be undertaken with confidence.

Of cases referred for treatment, roughly equal numbers occurred in boys and girls, although it has often been stated that the incidence is two or three times as great in boys as in girls. In my experience in the younger age groups slightly more girls attend for treatment than boys. This may be accounted for by the greater importance attached by parents for aesthetic reasons to retaining incisor teeth in girls.

An acute pulpitis is indicated by a marked reaction to thermal tests, the pain continuing after the removal of the stimulus. Such teeth with acutely inflamed pulps can only be retained if a pulpotomy or pulpectomy is performed.

The period of time between the accident and the first attendance of the patient for treatment is a very important factor in cases involving the dentine and pulp. It is usually not possible in such fractures to conserve the pulp if the patient is first seen more than 24 hours after the injury.

With minute exposures and an open apex seen within 24 hours pulp capping in place of pulpotomy or pulpectomy is well worth trying. After sterilisation of the fractured surface with acriflavine, zinc oxide and oil of cloves mixed with cotton wool should be applied to the exposure without exerting any pressure and held in position with a copper ring.

When the pulp is not exposed every effort should be made to conserve it even though a considerable time has elapsed following the injury; the prognosis will depend on whether or not the pulp shows signs of acute inflammation when the child is first seen. No first-aid treatment is usually necessary in such cases seen more than a month after the injury if the tooth is still vital and is not unduly sensitive to thermal tests, as it may be assumed that a protective calcific barrier has been laid down over the pulp.

Yours faithfully,
 J. L. HARDWICK.

School of Dental Surgery,
 The Dental Hospital,
 Birmingham, 3.
 February 10th, 1953.

VITAL STATISTICS (PROVISIONAL) FOR 1952

The Registrar-General has announced* the provisional total statistics for England and Wales for the fourth quarter of 1952 and for the whole of that year.

Live Births.—Live births registered in the fourth quarter of 1952 numbered 158,029, representing a rate of 14.3 per 1,000 population, compared with 153,995 and 160,200 and rates of 13.9 and 14.5 in the same quarters of 1951 and 1950, respectively. The total of live births registered for the year was 673,559, being slightly lower than for 1951, and representing a rate of 15.3 per 1,000 population, compared with 15.5 in 1951.

Stillbirths.—There were 3,741 stillbirths registered in the December quarter, giving a rate of 23.1 per 1,000 total live and still births, compared with rates of 24.2 and 22.7 for the fourth quarters of 1951 and 1950, respectively. The annual figure for 1952 (15,578) represented a rate of 22.6, which was a slight improvement from a rate of 23.0 in 1951 and a fraction below the previous lowest annual rate of 22.7 in both 1949 and 1950.

Deaths.—The deaths registered in the quarter numbered 136,587, representing a rate of 12.4 per 1,000 population, compared with 121,894 and a rate of 11.0 for the corresponding quarter of 1950. The total number for the year 1952 was 497,290, and the annual rate, 11.3, was the second lowest on record and compared with rates of 12.5 in 1951 and 11.6 in 1950.

Deaths of children under one year of age in the quarter numbered 4,682 or 29.0 per 1,000 related live births, compared with 4,583 and 5,032, representing rates of 28.5 and 30.0, respectively, in the same quarters of 1951 and 1950.

The total for the year 1952 was 18,425, representing a rate of 27.6, the lowest ever recorded in this country. This rate compares with 29.7 in 1951 and 52.8 in 1938.

In the table at foot of page the numbers and rates of live births, stillbirths, deaths, and deaths of children under one year of age, registered in the December quarter and in the whole year 1952, are compared with the corresponding figures for 1951, 1950 and 1938.

* The Registrar-General's Weekly Return No. 2, 1953. H.M.S.O., price 1s. net or by post from P.O. Box 569, London, S.E.1. Price 1s. 1d.

DUAL APPOINTMENTS

The Ministry of Health has issued Circular 3.53, dated February 6th, to all Local Health Authorities in England and Wales. We reproduce the circular in full, in view of its importance to many members of the Public Health Service.

Joint Use of Medical Staff by Local Authorities and Hospital Authorities
Recommendations made by Ministry of Health in agreement with the County Councils Association, the Association of Municipal Corporations, the London County Council, and the British Medical Association

1. In paragraphs 14 and 44 of Circular 118/47, dated July 10th, 1947, the Minister of Health suggested that medical officers whose services might be required by both local health authorities

and hospital authorities should each be appointed on an agreed part-time basis to the staff of both authorities.

2. The suggestion has been found in practice to involve various difficulties in those cases where the medical officer is employed full-time in the aggregate; different arrangements have in fact been adopted in different areas, many of them provisional pending reconsideration of the position.

3. The Minister has now reviewed the matter in consultation with the County Councils' Association, the Association of Municipal Corporations, the London County Council and the British Medical Association, with whom it has been agreed that the suggestion made in Circular 118/47 should be withdrawn so far as concerns medical officers employed in the aggregate full-time and that the following arrangements should be recommended for general adoption in these cases:—

(a) The medical officer would have a full-time contract with the body, whether local health authority or hospital authority, which requires the greater use of his services, and would receive the full-time salary appropriate to that employment.

(b) The authority with whom the medical officer is in contract in accordance with (a) would make arrangements with the other authority concerned for the provision to them of services (including medical services, without necessarily always specifying a named medical officer or officers, and, if need be, the services of other staff and/or accommodation).

(c) The details of the arrangements for the provision of services, including the financial arrangements, would be settled between the two authorities and would not affect the remuneration of any medical or other officer whose services might be made available under the arrangements. In general, the financial arrangements in such cases should have regard to:

(i) the time expected to be given by any medical officers and other staff to the "borrowing authority" in relation to their gross remuneration; and

(ii) overheads, if any.

4. Accordingly, it is recommended that after the date of this circular arrangements for the joint use (amounting in the aggregate to full-time employment) of medical staff by local health authorities and hospital authorities should be framed on that basis.

Recommendations with regard to arrangements already operating

5. It is recommended that officers already employed by local health authorities and hospital authorities be dealt with as follows:—

Officers at present covered by provisional arrangements

(1) (a) An existing officer who is giving service (amounting in the aggregate to full-time) to the two types of authority under arrangements which, when made, were specifically declared or understood to be provisional or subject to review, should be given as soon as practicable due notice of the termination of the present arrangements and should have the new arrangements applied to him as from the day following the expiry of the due period of notice or May 1st, 1953, whichever is the later.

ENGLAND AND WALES

BIRTHS AND DEATHS REGISTERED IN THE QUARTER ENDED DECEMBER 31ST, 1952, AND IN THE YEAR 1952, WITH COMPARATIVE FIGURES FOR THREE EARLIER YEARS

Fourth Quarter of :		Live births		Stillbirths		Deaths (including non-civilians)		Deaths of infants under one year	
		Number	Per 1,000 population	Number	Per 1,000 total live and still- births	Number	Per 1,000 population	Number	Per 1,000 related live births
1952	...	158,029	14.3	3,741	23.1	136,587	12.4	4,682	29.0
1951	...	153,995	13.9	3,812	24.2	121,894	11.0	4,583	28.5
1950	...	160,200	14.5	3,726	22.7	135,359	12.3	5,032	30.0
1938	...	143,756	13.8	5,833	39.0	119,366	11.5	7,504	49.4
Year :									
1952	...	673,559	15.3	15,578	22.6	497,290	11.3	18,425	27.6
1951	...	679,689	15.5	16,019	23.0	549,380	12.5	20,223	29.7
1950	...	691,760	15.8	16,055	22.7	510,301	11.6	20,817	29.6
1938	...	621,204	15.1	24,729	38.3	478,996	11.6	32,724	52.8

- (b) Where, however, existing arrangements are less favourable to the officer than the new ones and were specifically declared or understood to be provisional when made, the new arrangements should be applied retrospectively from the date when the current provisional arrangements were made.

Other Officers

- (2) An existing officer employed under arrangements of a kind other than those dealt with in (1) above should be permitted to elect to remain subject to his present arrangements and continue to be employed as at present whether these arrangements involve or do not involve separate contracts with different authorities.

6. All new appointments made as existing appointments under (2) of paragraph 5 above fall vacant should be on the new basis recommended in paragraph 3.

7. The local health authority are asked to review forthwith any provisional arrangement of the kind mentioned in paragraph 5 which they may have made in respect of a medical officer serving them; and, if they make the greater use of the officer's services, the authority should take steps, in consultation with the hospital authority concerned, to apply to the officer the appropriate recommendation made in that paragraph. In the converse case, where the hospital authority make the greater use of the officer's services, the hospital authority are being asked to take similar action in consultation with the local health authority.

Advisory Committee

8. A small joint advisory committee, consisting of representatives of the employing authorities and the British Medical Association, will be appointed to which officers and employing authorities can make application for advice in matters of doubt. It is suggested that the Advisory Committee's advice should be sought if mutually acceptable arrangements in accordance with the principles indicated in paragraph 5 above cannot be worked out in a particular case between the authorities concerned or between these authorities and a medical officer.

9. Any application for the Advisory Committee's advice should be addressed to the Secretary, Ministry of Health, Savile Row, London, W.1, and should quote the number of this circular.

A copy of this circular has been sent direct to the Medical Officer of Health. A communication in similar terms (R.H.B. (53)) has been sent to-day to Regional Hospital Boards, Boards of Governors and Hospital Management Committees.

SOCIETY OF MEDICAL OFFICERS OF HEALTH

NOTICES

DENTAL OFFICERS GROUP

President: K. Batten, Esq. (Chief D.O., Cornwall).

A meeting of the Group will be held in the Committee Room, Society of Medical Officers of Health, Tavistock House South, Tavistock Square, London, W.C.1, on Saturday, March 21st, at 2.15 p.m. Dr. Sydney Blackman, M.R.C.S., L.R.C.P., will speak on "Cystic Diseases of the Jaw in the Child and Young Adult" (illustrated with slides).

J. F. A. SMYTH
Hon. Secretary.

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Gloucester.
Telephone 66374.

MATERNITY AND CHILD WELFARE GROUP

A meeting of the Group will be held on Saturday, March 28th, at 2.30 p.m., in the Old Library, B.M.A. House, when Dr. Dorothy Taylor, Senior Medical Officer, Ministry of Health, will speak on the question "Are the Child Welfare Clinics meeting the needs of the mothers of to-day?"

DORIS CRAIGMILE, *Hon. Secretary.* MARY T. PATERSON, *Hon. Asst. Secretary.*

SCHOOL HEALTH SERVICE GROUP

An ordinary meeting of the Group will be held on Friday, March 20th, at 4.30 p.m., in Room 310, London School of Hygiene and Tropical Medicine, Keppel Street, Gower Street, London, W.C.1. E. R. Bransby, Ph.D., of the Ministry of Health, will speak on "Some Reflections on Research in the School Health Service."

A. A. E. NEWTH, *Hon. Secretary.* ALEX. MORRISON, *Hon. Asst. Secretary.*

SERVICES GROUP

The Annual General Meeting of the Group will be held at the London School of Hygiene and Tropical Medicine, Keppel Street, London, W.C.1, on Friday, April 10th, 1953, at 5.30 p.m., when Major-General T. Young, C.B., O.B.E., Q.H.F., will deliver his Presidential address.

G. M. FRIZELLE,
Hon. Secretary.

London School of Hygiene & Tropical Medicine,
W.C.1.

REPORTS

MIDLAND BRANCH

President: Dr. H. M. Cohen (School M.O., Birmingham C.B.).

Acting Hon. Secretary: Dr. Jean M. Mackintosh (Sen. M.O., M.C.W., Birmingham C.B.).

The second meeting of the session was held at Lancaster Street Welfare Centre, Birmingham, on Thursday, November 6th, 1952, at 3 p.m. The President was in the chair, and 21 members attended: Drs. Bulmer, Brown, Carey, Clayton, Earle, Griffin, Hatherley, Lycett, Markham, McKinlay, McLaren, Pickup, Preston, Stark, Starkie, Stephens, Stewart, Tabbush, Thomson, Thornton, and the Secretary.

Preventive Orthopaedics

Mr. T. T. Stamm, Orthopaedic Surgeon, Guy's Hospital, then gave his address on the above subject.

Mr. Stamm stated that 30% of the population suffered from some defect of the feet, and foot troubles were a major factor in the care of old people. He then outlined the chief conditions giving rise to the major disabilities, viz., the hallux valgus complex, hallux rigidus, constricted toes, and disabilities of the long arch. This was the order of incidence in adults; in children the order is reversed. In children it is the forefoot deformities which give rise to disabilities, and conditions such as valgus ankles can be ignored in young children.

Mr. Stamm next dealt with the detection of deformities at an early stage, and stated that a modern well-trained chiropodist knows more about the feet than most of us, and, in his opinion, the only practical solution from the point of view of inspection and early detection was to make use of a chiropodist. The problem was what to do with them when these disabilities had been detected. The local out-patient departments cannot cope with them. Fortunately, the vast majority do not require surgery or exercises, but supervision and special care in the matter of footwear—shoes and stockings. Two important factors operate—congenital disposition and faulty hygiene, both being of about equal importance.

Only where there is doubt, whether more drastic treatment is necessary, should the Orthopaedic Department be consulted. Mr. Stamm stressed that when a case has failed under ordinary care and maintenance, the orthopaedic surgeon can often do little or nothing.

Mr. Stamm then outlined the special measures for dealing with certain orthopaedic defects, such as flat foot (valgus ankle) and the hallux valgus group.

This stimulating and somewhat unorthodox address was followed by a keen discussion in which Drs. Cohen, Pickup, Griffin, Carey and Starkie took part.

A vote of thanks was accorded to the lecturer by Dr. Pickup, who observed that Mr. Stamm is now regarded as one of our most progressive orthopaedic surgeons, and expressed admiration for the lucid way in which he had described the mechanics of the various deformities, and his remarks on the preventive side of school foot health were very much appreciated. The vote of thanks was seconded by Dr. Carey and carried unanimously.

NORTHERN BRANCH

President: Dr. H. J. Peters (M.O.H., Stockton-on-Tees M.B.).

Hon. Secretary: Dr. W. S. Walton, G.M. (M.O.H., Newcastle-on-Tyne C.B.).

A meeting of the Branch was held in Newcastle-on-Tyne on Friday, December 19th, 1952. The President was in the chair, and 11 members attended.

It was agreed that the annual dinner be held in the University Union, King's College, and that the arrangements and cost be left in the hands of the President and Hon. Secretary.

To meet expenditure on social functions which should not be charged to Branch funds, it was decided to inaugurate a Social Fund, to which members would be invited to contribute up to a limit of 5s.

The Hon. Secretary reported that D.P.H. candidates would now be accepted for membership of the Society on payment of half the annual subscription.

The method of electing the Branch Council was discussed, and it was agreed that the Council review its constitution with a view to ensuring that all sub-groups were represented. It was further agreed that for this session Dr. J. H. Maughan, Hon. Secretary of the Northern Sub-Group of the County District Group, and Dr. G. H. Shanley, Hon. Secretary of the Durham County Medical Officers' Guild, be invited to attend Council meetings.

The reasons for the indifferent attendance at meetings was discussed at length, when it was agreed that as an experiment the meeting for May be held in the evening.

Dr. M. W. Dewell was re-elected as the Branch's representative on the local branch of the Institute of Almoners.

Referring to the losses incurred in publishing *PUBLIC HEALTH*, Dr. Shanley stated that there were firms who would undertake obtaining advertisements on a percentage basis. It was agreed that this suggestion be transmitted to the Council of the Society for its consideration.

A meeting of the Branch was held on Friday, January 16th, 1953. Dr. W. G. Patterson (Vice-President) was in the chair, and 20 members and two guests attended.

Social Fund.—The Hon. Secretary stated that members would be circularised shortly with regard to contributions to the Social Fund, limited to 5s. per member.

Annual Dinner.—It was agreed that this be held on either the third or fourth Friday in March at the University Union.

Medical Manpower: Area Recruitment Committees.—The Hon. Secretary submitted the names of those appointed for the Northern Region.

Nurses: Fever Training.—It was agreed that the Branch informs the Council that it considers the termination of the training of fever nurses as such to be a retrograde step and protests at the action of the General Nursing Council in terminating the Register.

Address by Dr. Hugh Paul.—Dr. Hugh Paul, Medical Officer of Health, Smethwick, delivered an address on "Epidemiology and Public Health."

He propounded some original views on the value of notification of infectious diseases, the necessity of isolation of contacts, changes in the major causes of death, measles immunisation, and medical and lay administration, and stirred the members with his provocative and iconoclastic ideas.

After questions had been dealt with in a similar manner, a vote of thanks, proposed by Dr. W. S. Walton, was warmly supported.

NORTH-WESTERN BRANCH

President: Dr. K. K. Wood (M.O.H., Bury C.B.).
Hon. Secretary: Dr. J. S. G. Burnett (M.O.H., Preston C.B.).

A meeting of the Branch was held on the evening of Friday, December 12th, at Bury, with 37 members attending, when the President of the Society was entertained to dinner, and subsequently addressed the Branch on, *inter alia*, national housing problems in relation to the irritant effect of chronic piles, with asides of a medical character bearing on the association of honesty with the administration of medical practice.

Dr. E. H. Walker, as an old colleague, referred nostalgically to the many interesting memories raised by Dr. Topping's racy address, and Dr. H. J. Crewe gracefully acknowledged, on behalf of the younger members, the wealth of worldly wisdom and experience that had been so lavishly bestowed on them.

The meeting ended in some slight disorder.

An ordinary meeting of the Branch was held in Manchester on Friday, January 9th, 1953, when 30 members attended.

A symposium of papers on "The Future Functions of the Health Visitor" were read by Drs. M. W. Davies, A. T. Burn, and T. S. Jones. (An abridgment of the opening papers and discussion will be published in a later issue of *PUBLIC HEALTH*.)

HEALTH EDUCATION IN A SANITARY AUTHORITY

The Central Council for Health Education is organising a week-end seminar for medical officers of health on the above subject. It will be held at St. John House, 15-16, Collingham Gardens, London, S.W.5, from 6 p.m. Friday, April 24th, to 10 a.m. on Tuesday, April 28th, immediately preceding the Health Congress of the Royal Sanitary Institute at Hastings.

Sir John Charles, the Chief Medical Officer of the Ministry of Health, will give the opening address, and Drs. S. Leff (M.O.H., Willesden M.B., and Area M.O.), Middlesex, D. P. Lambert (District M.O.H., Divisional M.O.), West Riding, and Dr. G. Don, Lecturer in Public Health (Environmental Hygiene), the London School of Hygiene and Tropical Medicine, will give the subsequent papers. Dr. Emrys Davies, Education Officer to the Council, will lead a special study of teaching techniques for the community. The rest of the conference will be arranged on group discussion lines to facilitate the maximum pooling of experience.

The cost of the seminar for resident delegates, including gratuities, will be £5 5s. 0d., and for non-resident delegates, £2 12s. 6d. (which covers all meals except breakfast, but no accommodation). Applications should be addressed to the Medical Director, C.C.H.E., Tavistock House, Tavistock Square, W.C.1.

The Royal Institute of Public Health and Hygiene announces that the next bi-annual Examinations of the Institute, in the subjects of General Hygiene, School Hygiene, and Mothercraft and Child Welfare, will be held in London and the various provincial centres on Saturday, June 20th, 1953. The Diploma and the Certificate, respectively, are recognised qualifications for nomination to Membership and Associateship (M.R.I.P.H. and A.R.I.P.H.). Full details of the examinations may be obtained from the Secretary, at 28, Portland Place, London, W.1. (LANgham 2731/2.)

The annual conference convened by the National Association for Maternity and Child Welfare will be held at Church House, Westminster, London, S.W.1, from June 10th to 12th *next*. The general theme of the conference will be "Education for Parenthood." The conference fee will be 1 guinea for the three days. Applications should be forwarded to the Secretary (Miss I. V. Evelyn), N.A.M.C.W., Tavistock House, Tavistock Square, London, W.C.1.

OFFICIAL ANNOUNCEMENTS

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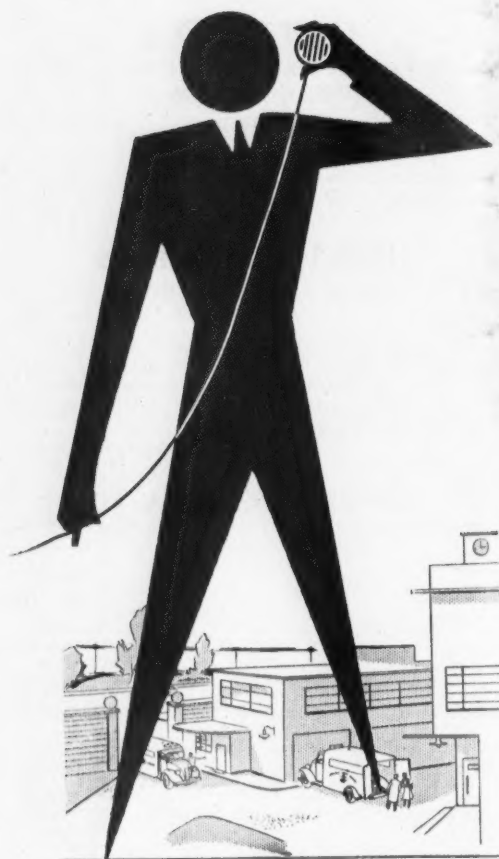
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